PI CONNECT Simatic Batch

Installation Guide

V3.1a

Siemens AG, RC-DE I CS MTE MHM

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Siemens AG, RC-DE I CS MTE MHM

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1. Preface

1.1 Audience

The PI CONNECT Simatic Batch was designed to be an open system. This guide is intended for administrators and software engineers who have to install PI CONNECT Simatic Batch.

1.2 Organization

Chapter 1 This chapter contains introductory information for the installation guide user.

Chapter 2 This chapter provides information required before installing the interface. Also the software and hardware requirements for running PI CONNECT Simatic Batch interfaces can be found there.

Chapter 3 This chapter provides information about the installation procedure.

Chapter 4 This chapter contains information about tasks to perform after installation.

1.3 Conventions

The following conventions are used in this guide to indicate or emphasize certain terms or features:

`Courier`	Expressions specified in `Courier` indicate command line input, screen output or the contents of files.
Bold	Words printed in **bold** type highlight facts and conditions that deserve special attention.

1.4 Submitting Comments

Please feel free to give us your opinion of the usability of this manual, to suggest specific improvements, and to report errors. Mail your comments to:

postal address Siemens AG
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1.5 Copyrights and Trademark Notices

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2. System requirements

2.1 Software requirements

Supported operating systems

The released operating systems have to cover the requirements of the used Simatic Batch Client. Please see the Simatic Batch manual for details.

Windows user privileges

You need administrative privileges to install, uninstall or configure the software.

The runtime service needs at least the standard Windows user for batch client stations (Power User, member of the SIMATIC user groups).

The Batch API Station (Interface PC) has to use auto admin logon like each other Batch Client station. The PI CONNECT Simatic Batch Services have to be started after the auto admin logon.

If you use Domain environment or non administrative logins for runtime environment a lot of unexpected effects can be occur and have to be solved during the commissioning. In some cases the Interface software is not able to run in service mode.

For this reason we strongly recommend to use workgroups and logon user with administrative privileges. In each case start the services using the same account like auto admin logon.

SQL Server 2005 Express

The Interface uses this Version of SQL Server as storage. SQL Server 2005 Express SP4 is part of our delivery. Other SQL Server versions and editions are not supported.

Management Studio for SQL Server 2005 Express (optional)

This tool is helpful to manage the SQL Database.

Supported Simatic Batch versions

The software is tested with the following Simatic Batch versions:

- Simatic Batch V 7.1 SP1 + Hotfix 16
- Simatic Batch V 7.1 SP2 + Upd5
- Simatic Batch V 8.0 Upd4
- Simatic Batch V 8.0 SP1

Simatic Batch Client installation without client license

PI CONNECT Simatic Batch requires the Simatic Batch Client installation. Please use the Simatic Batch version corresponding to your Simatic Batch system (including service packs, updates and hot fixes). Check the version to the supported Simatic Batch versions above. Before installing the prerequisites, verify that the server covers the hardware and operating system requirements of the Simatic Batch client.

The Simatic Batch API does not require a license because the interface uses only read access.

.NET Framework 2.0 & Windows Installer 3.1

PI CONNECT Simatic Batch requires the .NET Framework 2.0 and Windows Installer 3.1 to be installed on the computer where the application runs. In many cases, .NET Framework 2.0 and Windows Installer 3.1 are already installed. The installation wizard of PI CONNECT Simatic Batch will suggest installing the Microsoft .NET Framework redistributable file (dotnetfx.exe) or Windows Installer 3.1 if necessary.

2.2 Hardware requirements

The minimum and recommended hardware requirements have to meet the requirements of a Simatic Batch client installation. Please see the Simatic Batch manual for details.

Additional we recommend that the hardware has at least 2 GB installed RAM.

3. Installation

3.1 Licensing

The software is licensed to the machine on which it is running. To receive a valid license file proceed as follows

- Copy the CreateUMI.exe and the UMIL.dll (contained in the delivery package) to a directory, e.g. C:\umi.
- Run the file CreateUMI.exe.
- When you see the "press any key" in the opened window, finish the operation by pressing any key.
- A file named UMI_xxxxxx.dat will be created, where xxxxxx is the name of the PC where you did run the CreateUMI.exe.
- The Interface can run as multiple named instances. You need multiple instances if you want to connect more than one Simatic Batch server at the same terminal bus. Please give us a unique name (allowed characters “0..9”, “a..z”, “A..Z”,”_ “) for each instance you want to use. Defaults are 1, 2, 3, ….
  Please note: You need a new license if you rename an instance! If you don’t have a descriptive name at the time you want to request the license please use the default or request you license later. Instance name “1” is recommended in single instance environments (most of the plants).
- Send the UMI_xxxx.dat file to us (e.g. info.rhm.industry@siemens.com).
- You will receive the license files for the requested software.

To have the license files available for the installation it might be useful to do this in advance.

3.2 Update from older versions

Please refer to the readme file eventually contained in the delivery package for the latest information.

The update of the software normally is done by uninstalling the old version and installing the new version of the software.

Before uninstalling the old version:

- copy the following files to a safe place.
  - UMIL_xxxxx.dat (if exist)
  - UMIL_xxxxx.TXT (if exist)

- From V2.x: Make a screenshot of the Data manager Configuration Dialog. Take care that all parameters are visible.

- From V3.0: Make a screenshot of the PI CONNECT SIMATIC Service Configuration dialog. Take care that all parameters are visible. Delete the configuration file “PIConnectSimaticBatch.cfg” from the application data folder (type “%ProgramData%\Siemens\piconnectsimaticbatch” at the explorer or use the link at the PI CONNECT SIMATIC Batch configuration dialog).

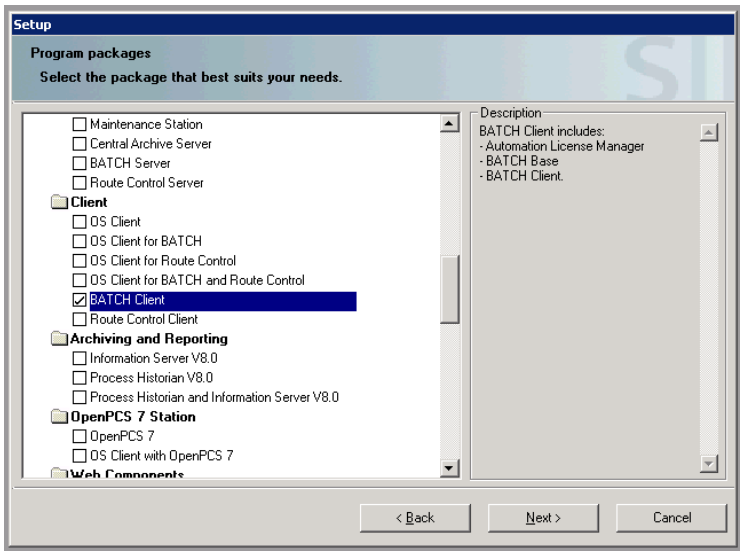
Perform the uninstallation as described in *chapter 4.6 Uninstall.*
Do not delete the SQL Database. Perform the installation as described in this chapter. After the installation procedure has finished copy the files listed above back to the installation path. If one or more already exist overwrite the existing files.
From the post installation steps only the settings for the services (refer to *chapter 4.4 Configure to run as* service) have to be done.

Updating to PI CONNECT Simatic Batch V3 requires to reconfigure the interface. For configuration details see the user manual.

3.3 Pre-installation steps

3.3.1 Simatic Batch API

This is a part of the Siemens SIMATIC PCS7 software. We recommend to install the complete Batch Client Package. This includes the Package Batch Base (=Batch API). If you install the complete Batch Client you have a Batch Control Center at the Interface host to check the connection to the Batch Servers. The other way is to install only the package “Batch Base”. In both cases you do not need a Batch Client license for the Interface host. You do also not need a Batch API license, because the interface uses the API “read only”



After the successful setup the following two additional actions are needed:

- This Simatic Batch Client station has to be integrated into the Simatic Batch system with the Simatic Manager on the PCS7 ES. Please see the Simatic Batch manual for details.

- The Simatic Batch Client station has to be configured to perform an auto logon after restart. The auto logon user should be the same as used on each other Simatic Batch Client station at the terminal bus. This user must be at least a member of the power user group (german: “Hauptbenutzer”).

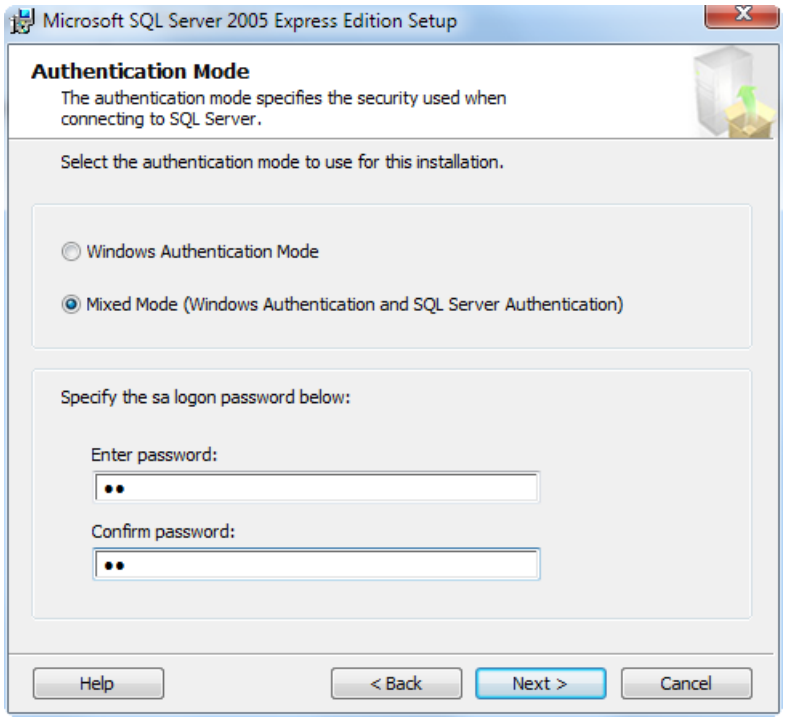
3.3.2 SQL Server Express

You can find the SQL Server Express 2005 in the folder

prerequisites\SQL Server Express with SP4

of the installation CD. Please start the SQLEXPR_WITH_SP4.EXE and follow the steps. You should use the default settings with the exception “Authentication Mode”. Please activate “Mixed Mode” like shown in the screen shot and set a strong password of your own choice. Please remember, you will need it in chapter “*4.3*

Database Setup".


Microsoft SQL Server 2005 Express Edition Setup
Authentication Mode
The authentication mode specifies the security used when connecting to SQL Server.
Select the authentication mode to use for this installation.
Windows Authentication Mode
Mixed Mode (Windows Authentication and SQL Server Authentication)
Specify the sa logon password below:
Enter password:
Confirm password:
Help
< Back
Next >
Cancel

3.3.3 SQL Server Express 2005 Management Studio (optional)

The Management Studio gives you a direct access to the interfaces database. This is helpful to administrate the database, testing and data tracking but not needed for the interface runtime.

You can find the SQL Server Express 2005 Management Studio setup in the folder

prerequisites\optional - SQL Server Management Studio Express

of the installation CD.

Follow the installation steps and use the default settings.

3.4 Installation instructions

This chapter describes the PI CONNECT Simatic Batch installation process. You must have **administrator privileges** on your computer to perform the installation. Please perform the following steps:

1. Insert your PI CONNECT Simatic Batch CD-ROM into the CD-ROM drive.

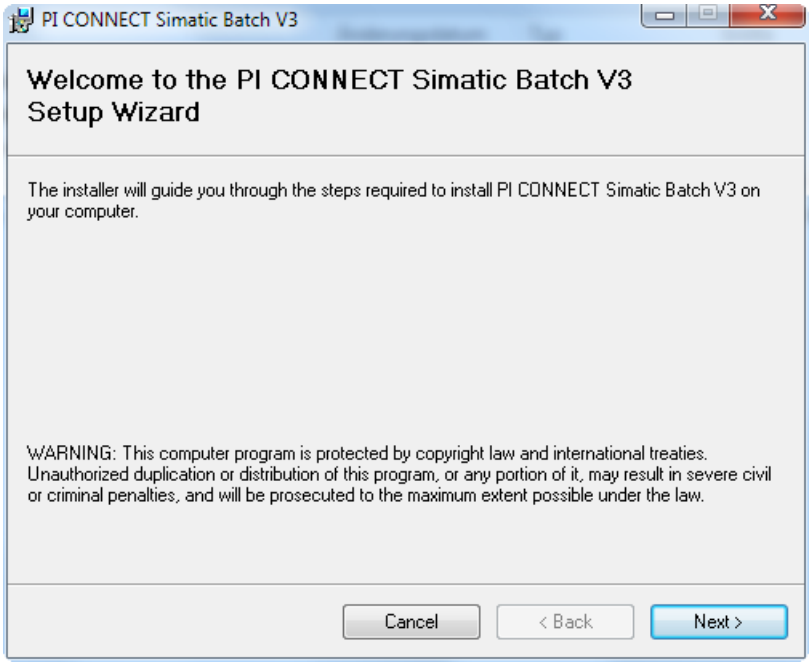
2. Please read the information of the file **"README.TXT"** if available. This file may contain important hints which are not written in the manual.

3. If setup does not begin automatically, you will need to run **"SETUP.EXE"** from the CD's root directory. The Setup-Wizard will guide through the installation process.

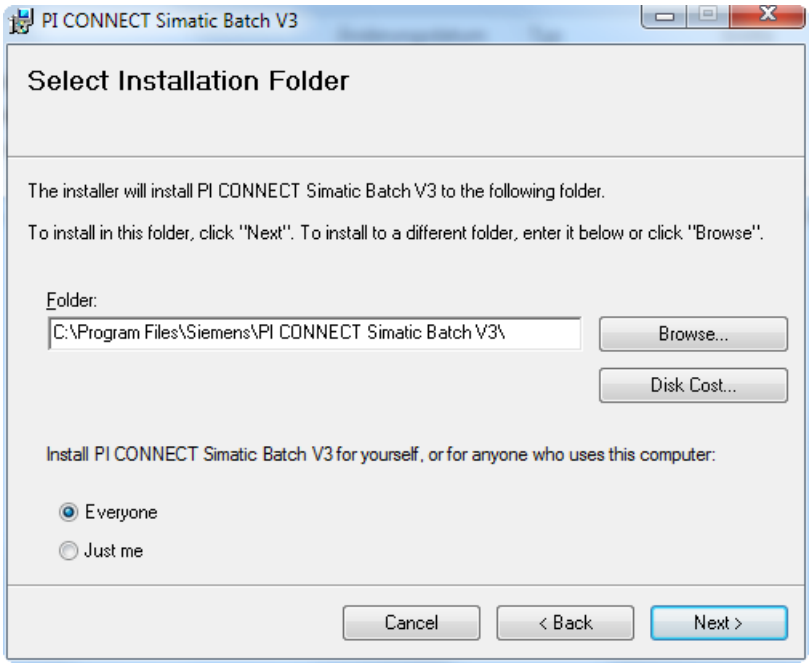
4. If necessary the .NET Framework 2.0 and/or Windows Installer 3.1 will be installed.

5. After installation of .NET Framework 2.0 and Windows Installer 3.1 a reboot is required. The installation of PI CONNECT Simatic Batch will continue afterwards.

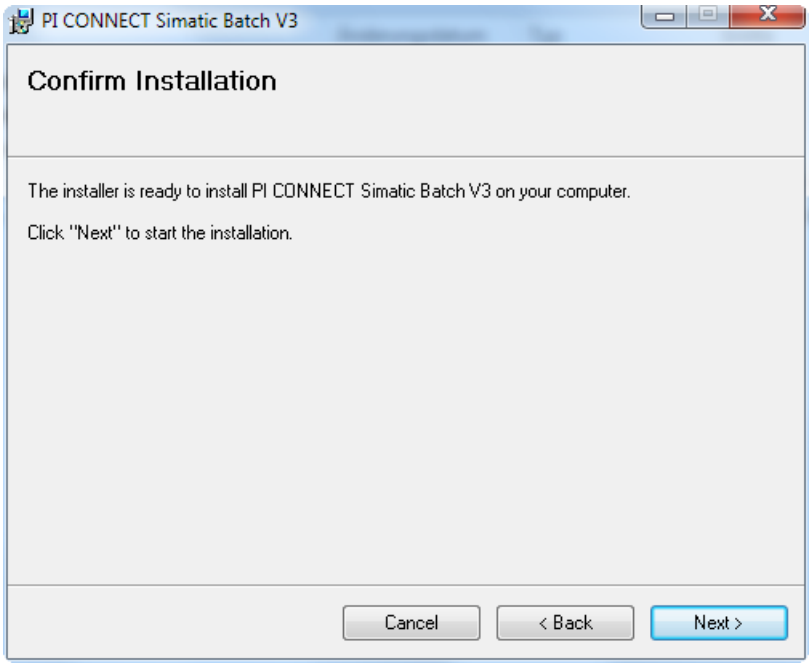
6. The installation wizard of the PI CONNECT Simatic Batch interface is started. Please click "**Next >**"


PI CONNECT Simatic Batch V3
Welcome to the PI CONNECT Simatic Batch V3 Setup Wizard
The installer will guide you through the steps required to install PI CONNECT Simatic Batch V3 on your computer.
WARNING: This computer program is protected by copyright law and international treaties. Unauthorized duplication or distribution of this program, or any portion of it, may result in severe civil or criminal penalties, and will be prosecuted to the maximum extent possible under the law.
Cancel
< Back
Next >

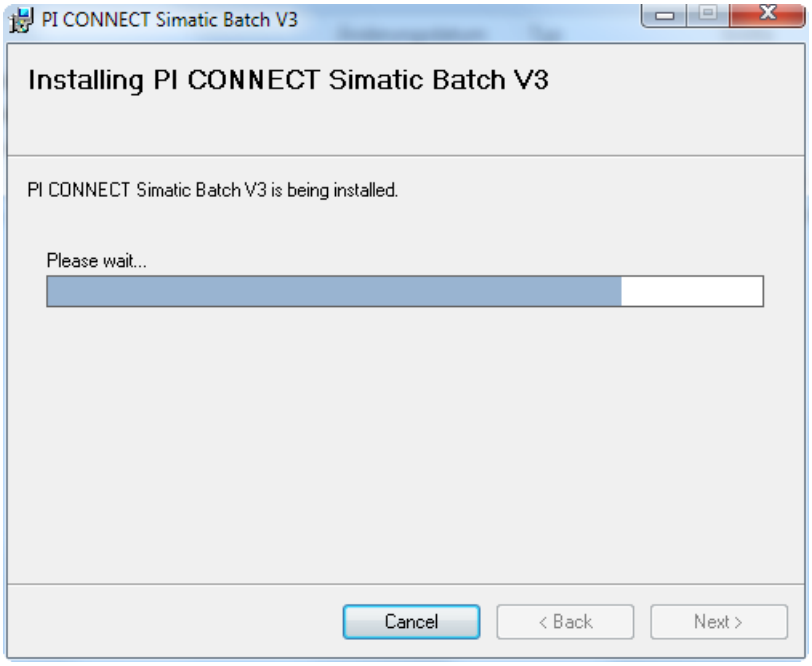
7. Select the installation folder for the application and click "**Next >**".


PI CONNECT Simatic Batch V3
Select Installation Folder
The installer will install PI CONNECT Simatic Batch V3 to the following folder.
To install in this folder, click "Next". To install to a different folder, enter it below or click "Browse".
Folder:
C:\Program Files\Siemens\PI CONNECT Simatic Batch V3\
Browse...
Disk Cost...
Install PI CONNECT Simatic Batch V3 for yourself, or for anyone who uses this computer:
Everyone
Just me
Cancel
< Back
Next >

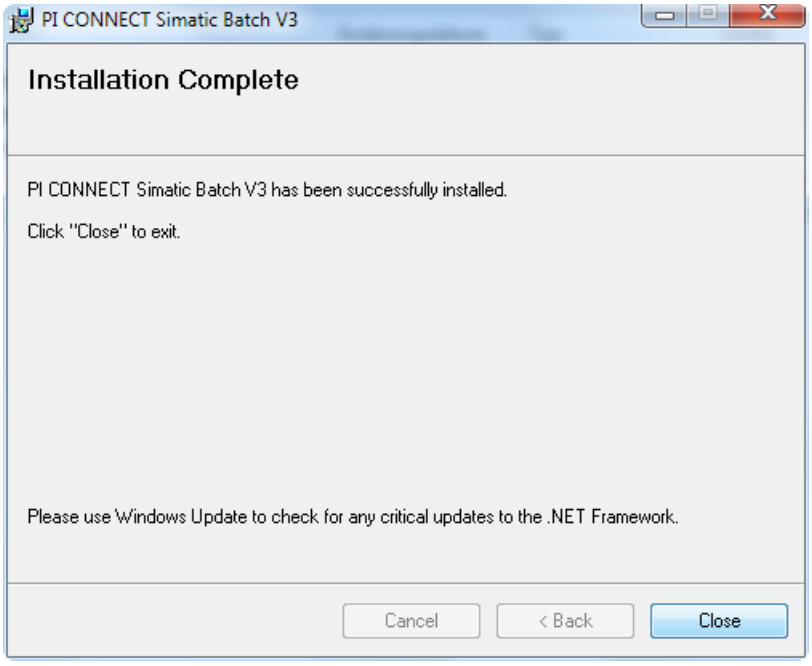
8. Confirm the installation by clicking the button "**Next >**"


PI CONNECT Simatic Batch V3
Confirm Installation
The installer is ready to install PI CONNECT Simatic Batch V3 on your computer.
Click "Next" to start the installation.
Cancel
< Back
Next >

9. The PI CONNECT Simatic Batch interface will be installed.


PI CONNECT Simatic Batch V3
Installing PI CONNECT Simatic Batch V3
PI CONNECT Simatic Batch V3 is being installed.
Please wait...
Cancel
< Back
Next >

10. To complete the installation click the "Close" button


PI CONNECT Simatic Batch V3
Installation Complete
PI CONNECT Simatic Batch V3 has been successfully installed.
Click "Close" to exit.
Please use Windows Update to check for any critical updates to the .NET Framework.
Cancel
< Back
Close

4. Post-installation steps

This section describes tasks you must perform to complete the installation of your PI CONNECT SIMATIC Batch interface.

At the next steps you need the PI CONNECT SIMATIC Batch configuration application (short CONFIG-App). To start this you must have **administrator privileges** on your computer.

You can find the CONFIG-App at the start menu:

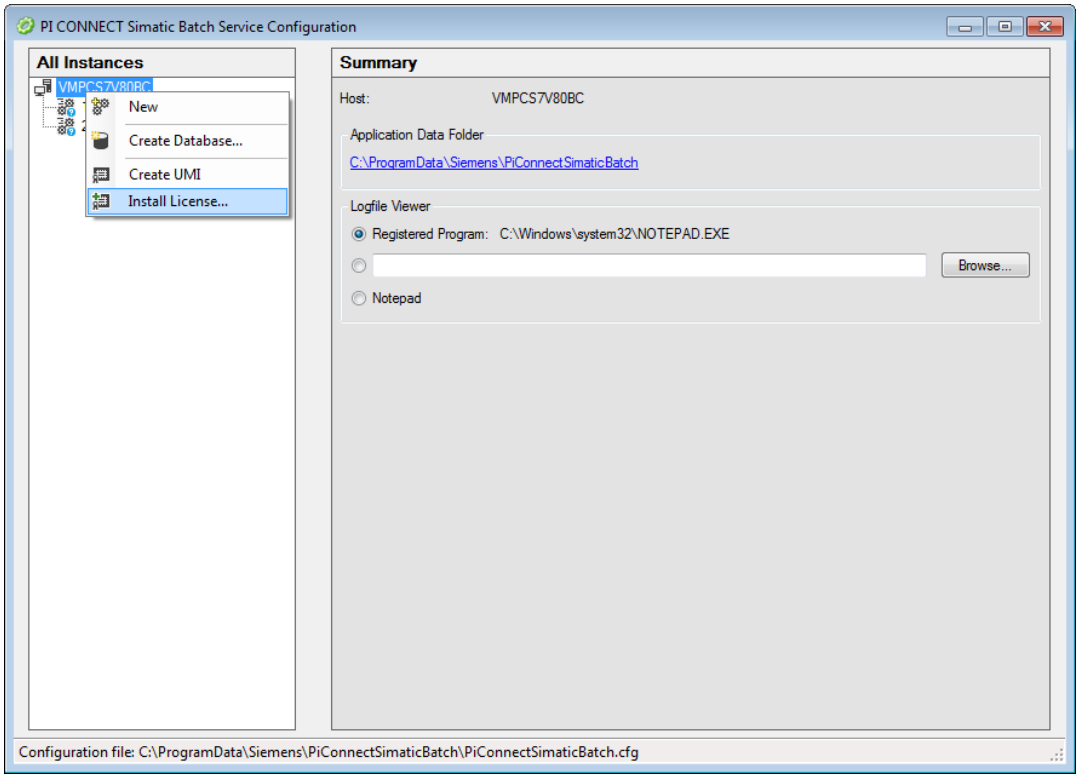
Start -> All Programs -> PI CONNECT SIMATIC Batch V3 -> Configuration

4.1 License Installation

The following steps install the license files. If not already done perform the steps described in *chapter 3.1 Licensing*.

In multi instance environments you have to install an own license for each instance.

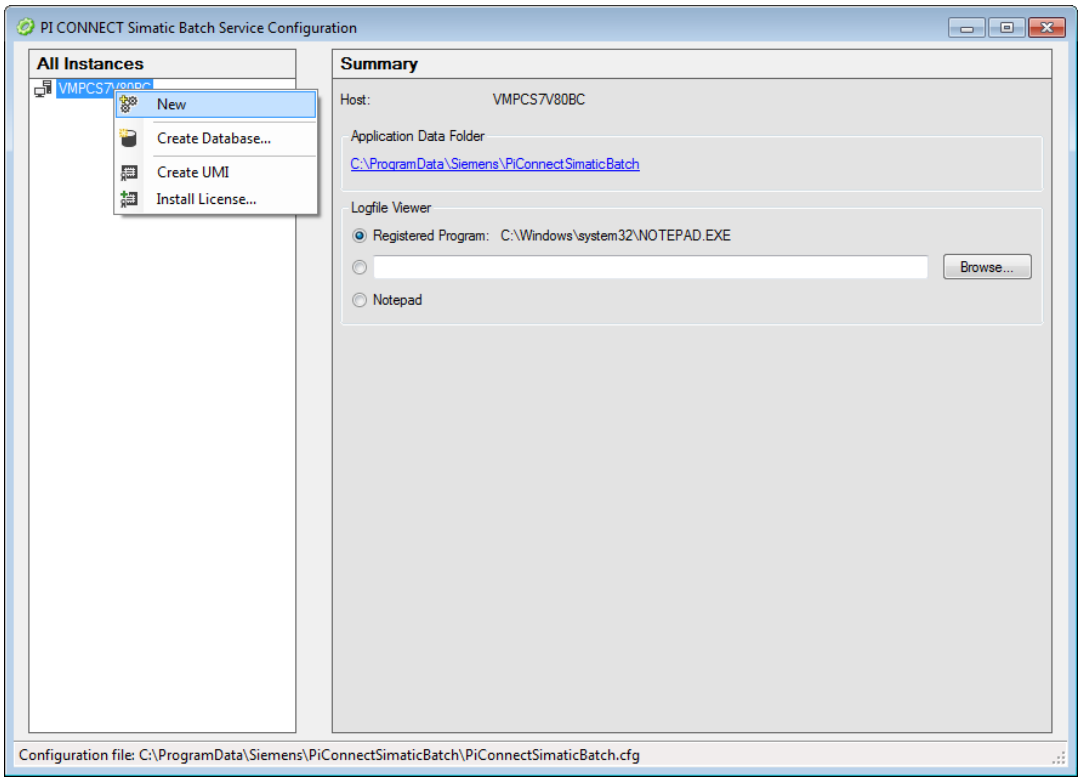
Please start the CONFIG-App and select root node (=host name) of the tree view at the left side. Enter the context menu by right mouse click and choose “Install License …”.



Select the license file “UMIL_xxxx.dat” and click the OK button.

4.2 Create an instance

For each connection to a Simatic Batch Server (standalone or redundant pair) you need an own instance of the PI CONNECT SIMATIC Batch Service. To create a new instance please start the CONFIG-App and select the root node (=host name) of the tree view at the left side. Enter the context menu by right mouse click and choose “New”.



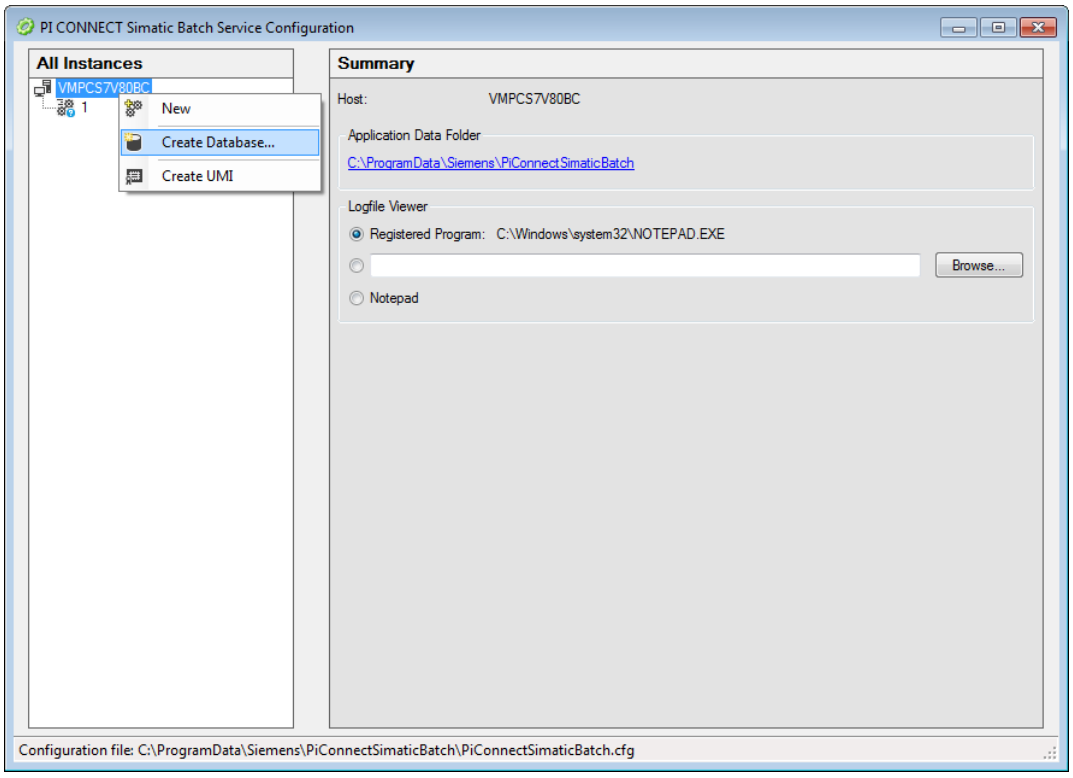
The new instance will be shown below the root node.

4.3 Database Setup

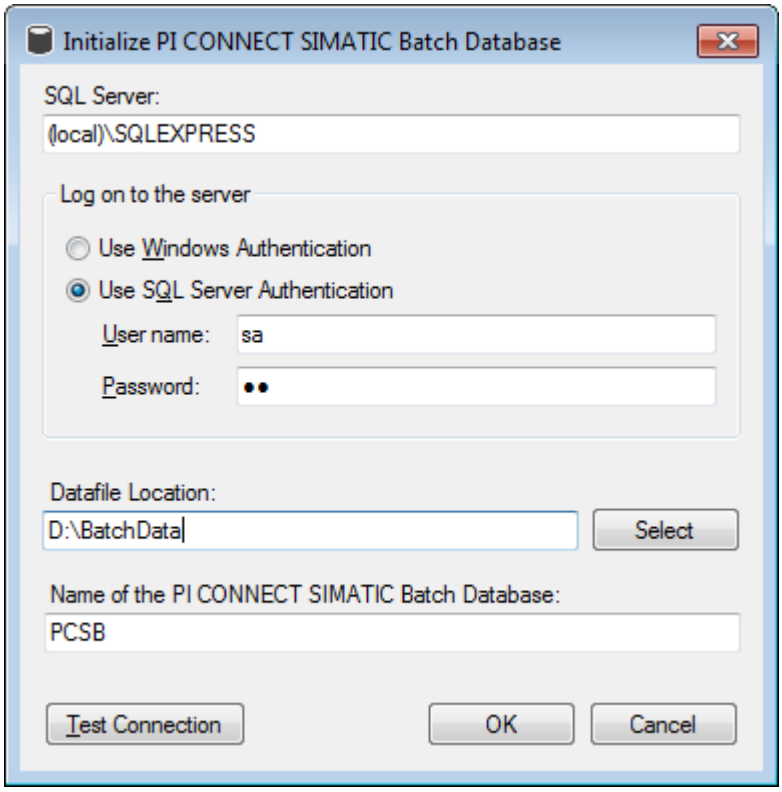
The following steps create and initialize the database.

In multi instance environments you need to run the following steps for each instance. Please take care for unique database names.

Please start the CONFIG-App and select root node (=host name) of the tree view at the left side. Enter the context menu by right mouse click and choose “Create Database…”.



The following dialog appears:



SQL Server:

The local\SQLEXPRESS entry should be there by default. If not, enter the name of your installed SQL Server.

Log on to the server:

Please select “Use SQL Server Authentication” and enter “sa” user and password from the SQL Server Express installation.

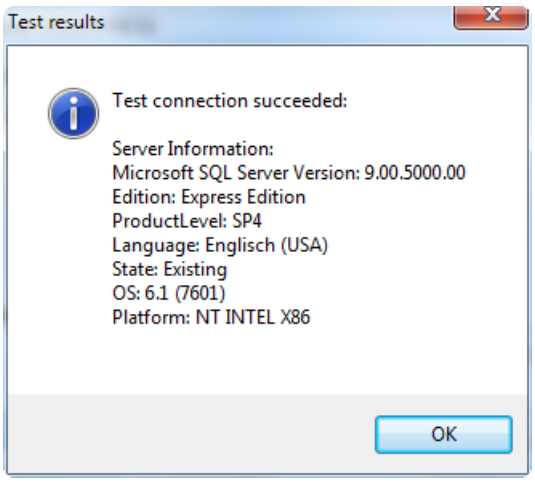
Data file location:

Press **“Select”** and choose the directory where the SQL Database should be installed. You should have at least 5 GB free disk space at this location.

Name of the PI CONNECT SIMATIC Batch Database:

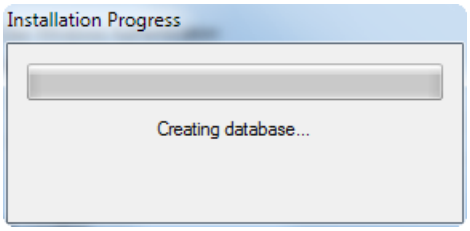
At single instance environments you can use the default “PCSB”. At multi instance environments you have to give unique database names for each instance

Press **“Test Connection”** to check the connectivity to the SQL Server. The result should look like this:

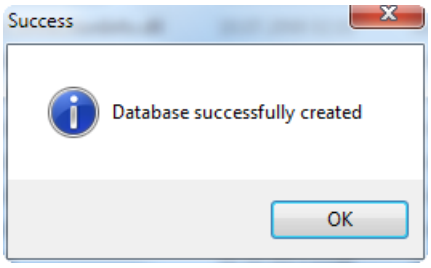


Confirm this message with the **“OK”** button.

In the “**Initialize Database**” dialog press the “**OK**” button to create database for the interface.



The SQL Database will be created and after successful creation the following message is displayed:



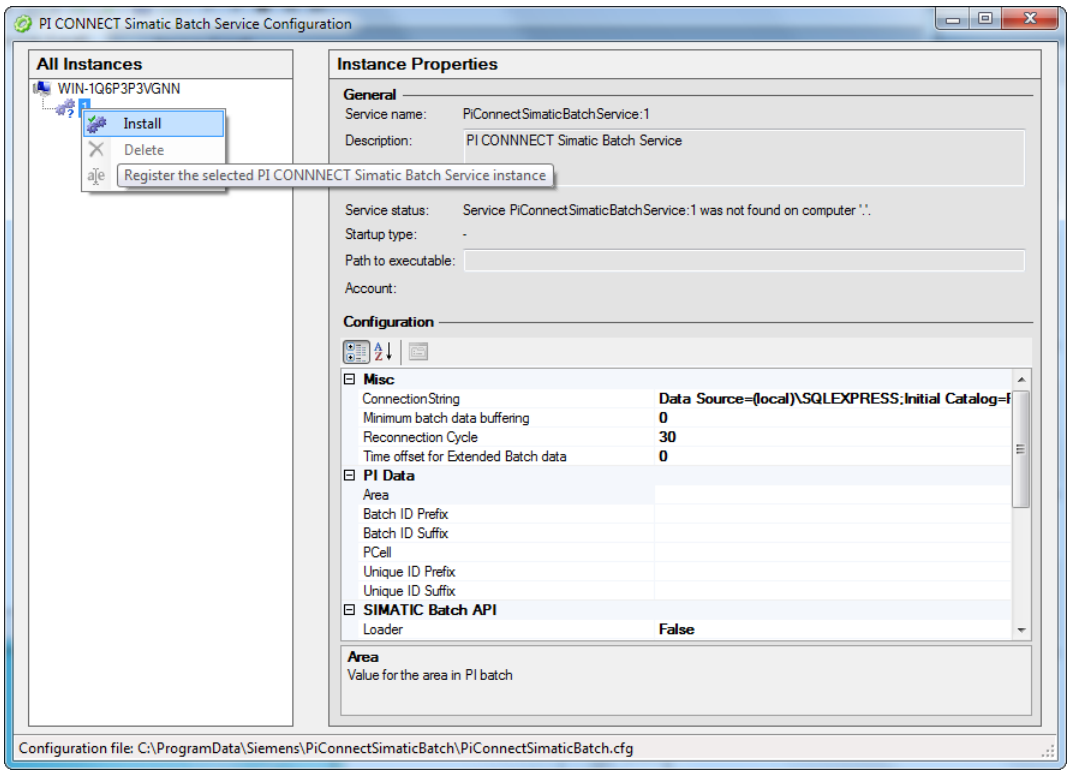
Confirm this action with **“OK”**.

4.4 Configure to run as service

In a multiple instance environment you need to run the following steps for each instance.

Please start the CONFIG-App and select the instance node you want to install. The screen shot shows a single instance having the name “1”. Open the context

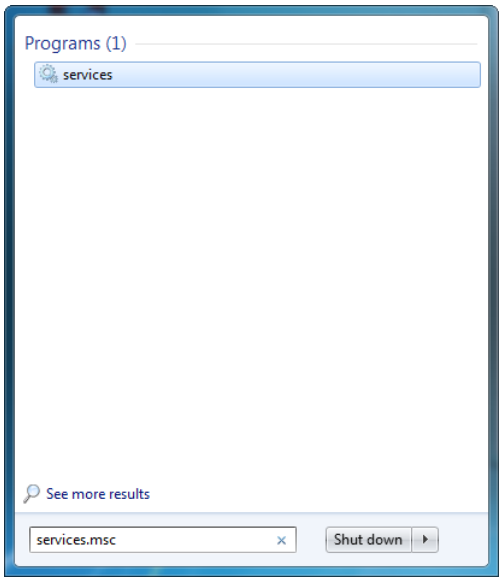
menu for this item und select “**Install**” to register the PI CONNECT Simatic Batch interface as a service.



Close the configuration application.

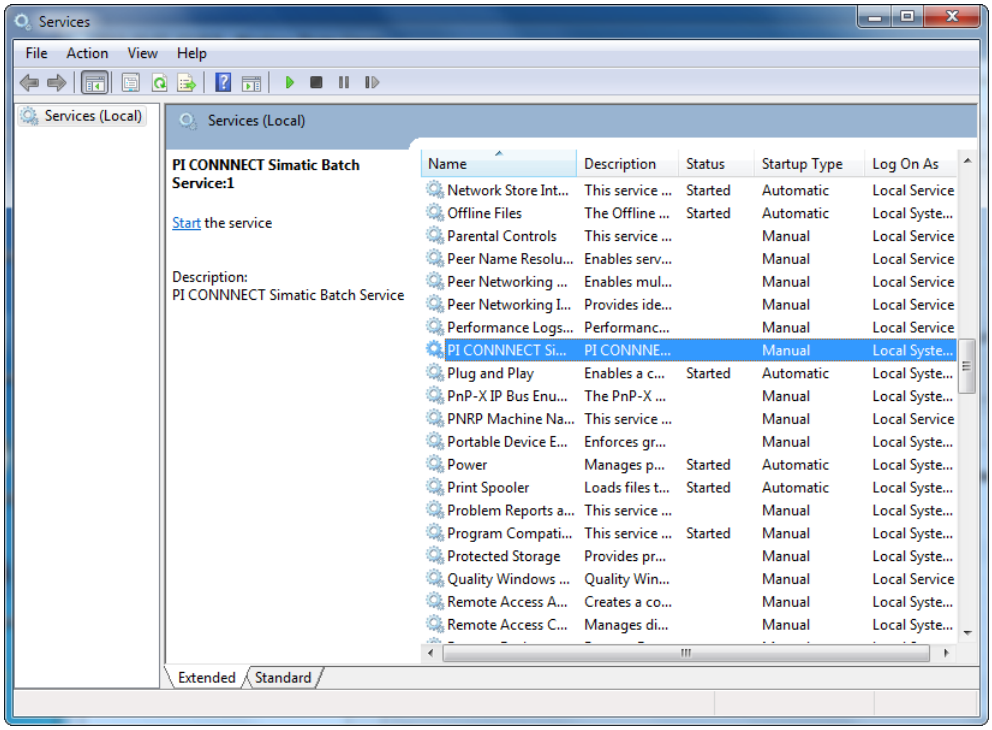
Start the Windows Service Control Manager:

Open the **Start Menu**, type **services.msc** in the search box, press **Enter**



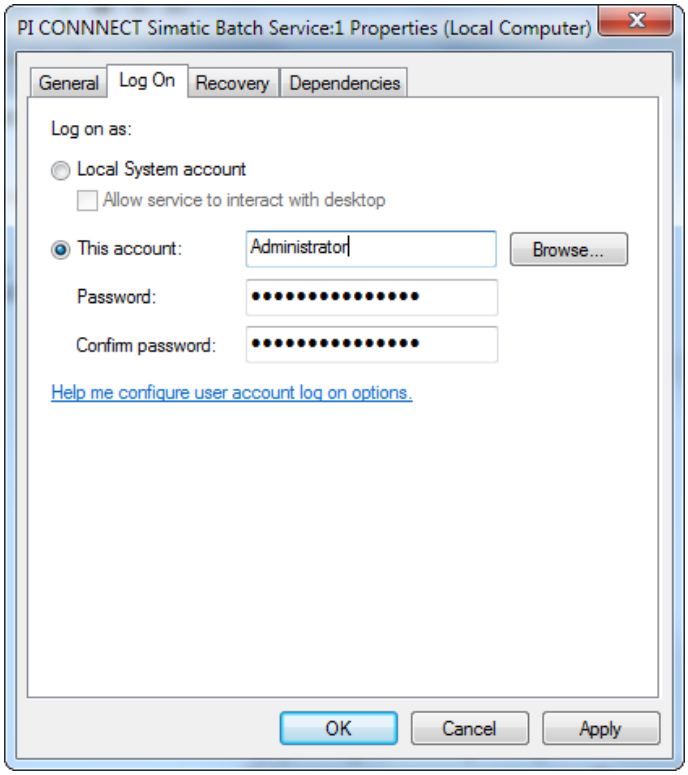
The Windows Service Control Manager lists all available services on your computer. You will notice a new entry:

- PI CONNECT Simatic Batch Service:*<instance name>*

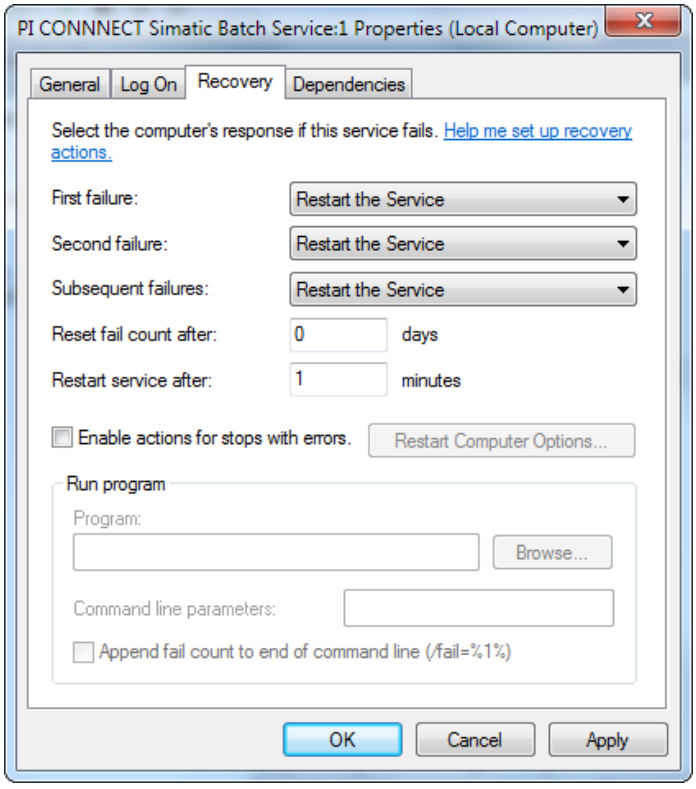

Services
File Action View Help
Services (Local)
Services (Local)
PI CONNNECT Simatic Batch Service:1
Start the service
Description:
PI CONNNECT Simatic Batch Service
Name
Description
Status
Startup Type
Log On As
Network Store Int... This service ... Started Automatic Local Service
Offline Files The Offline ... Started Automatic Local Syste...
Parental Controls This service ... Manual Local Service
Peer Name Resolu... Enables serv... Manual Local Service
Peer Networking ... Enables mul... Manual Local Service
Peer Networking I... Provides ide... Manual Local Service
Performance Logs... Performanc... Manual Local Service
PI CONNNECT Si... PI CONNNE... Manual Local Syste...
Plug and Play Enables a c... Started Automatic Local Syste...
PnP-X IP Bus Enu... The PnP-X ... Manual Local Syste...
PNRP Machine Na... This service ... Manual Local Service
Portable Device E... Enforces gr... Manual Local Syste...
Power Manages p... Started Automatic Local Syste...
Print Spooler Loads files t... Started Automatic Local Syste...
Problem Reports a... This service ... Manual Local Syste...
Program Compati... This service ... Started Manual Local Syste...
Protected Storage Provides pr... Manual Local Syste...
Quality Windows ... Quality Win... Manual Local Service
Remote Access A... Creates a co... Manual Local Syste...
Remote Access C... Manages di... Manual Local Syste...
Extended
Standard

Double click the **PI CONNECT Simatic Batch Service** to bring up the services properties dialog. Select the "**Log On**" tab.

The PI CONNECT Simatic Batch Service cannot run with the Local System account. The Simatic Batch API also needs an Operating System auto logon like each other Batch Client station (see also *3.3.1 Simatic Batch API*). It is strongly recommended to run the PI CONNECT Simatic Batch Service with the same account. Therefore select the option to run the service using a special account and password.



Select the "**Recovery**" tab and set the properties as shown in the following figure:



4.5 Configure the Autostart file

The setup procedure will add a shortcut called

`Start_PiConnectSimaticBatch.bat`

to the user's startup folder.

To start the PI CONNECT Simatic Batch interface automatically, please edit file `Start_PiConnectSimaticBatch.bat` located in the installation folder and uncomment the last line:

```
@echo off
REM - File: start_PiConnectSimaticBatch.bat
REM - Description: Start PI CONNECT Simatic Batch Service

net start "PiConnectSimaticBatchService:1"
```

Change the instance name in the last command line from ‘1’ to your instance name.

Now the interface is started after the user has logged on. For an automatic startup of the software after reboot please use the Auto Admin Logon function of the operating system.

Please note: If the auto logon user do not have privileges to start a service via script file (UAC is enabled) this method fails. In such case you can try the startup type automatic with option delayed start. But you have to take care that the auto logon is completed before the service starts.

An alternative option is to create a Task by calling “Taskschd.msc”. This task can be configured to run with administrative privileges. (“highest privileges” option). Trigger for this task should be the login of the auto logon user. The actions task should be the start of the “Start_PiConnectSimaticBatch.bat“ file. Please refer Microsoft documents for more details about creating tasks.

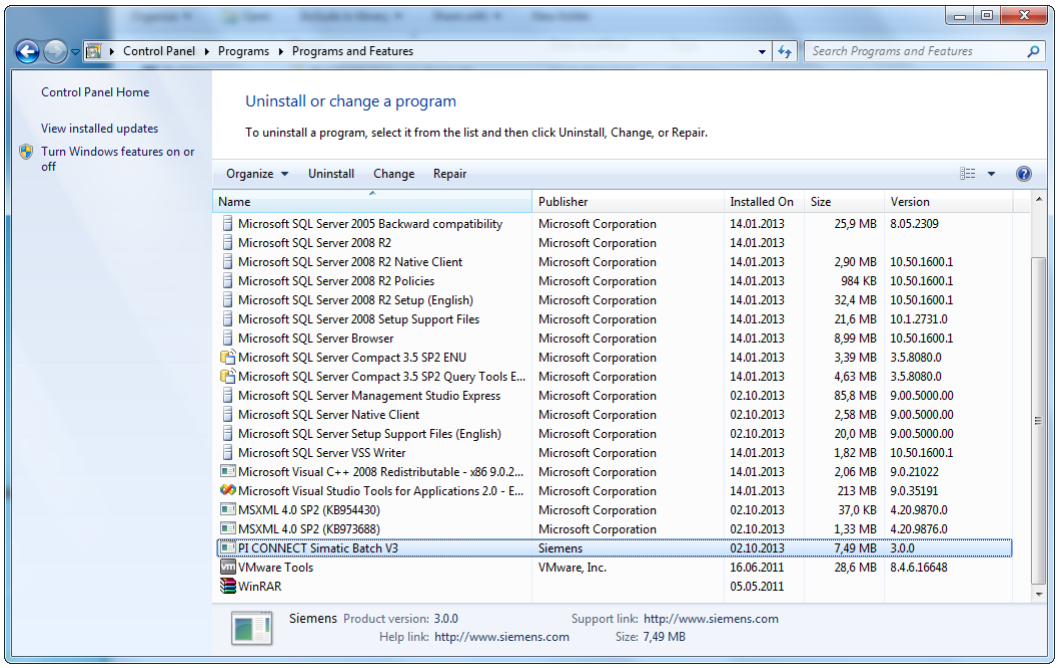
4.6 Uninstall

You must have **administrator privileges** on your computer to perform the uninstall routine. The routine removes all registered instances of the PI CONNECT SIMATIC Batch Services. The SQL Data base files created at chapter “4.2 Create an instance” are not removed by the uninstall routine.

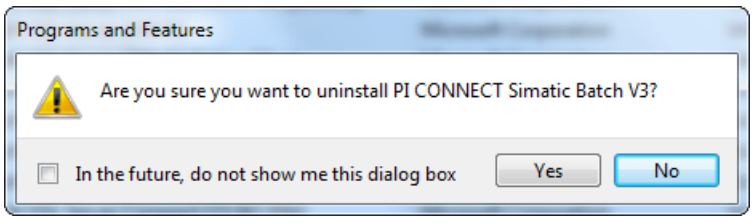
To uninstall the PI CONNECT Simatic Batch on a Windows system, use the Add/Remove Programs option of the Windows ControlPanel.

Start > Control Panel > Programs > Programs and Features > Uninstall a program

Select the entry PI CONNECT Simatic Batch V3 and click the button "**Uninstall**".


Control Panel ▸ Programs ▸ Programs and Features
Search Programs and Features
Control Panel Home
View installed updates
Turn Windows features on or off
Uninstall or change a program
To uninstall a program, select it from the list and then click Uninstall, Change, or Repair.
Organize
Uninstall
Change
Repair
Name
Publisher
Installed On
Size
Version
Microsoft SQL Server 2005 Backward compatibility
Microsoft SQL Server 2008 R2
Microsoft SQL Server 2008 R2 Native Client
Microsoft SQL Server 2008 R2 Policies
Microsoft SQL Server 2008 R2 Setup (English)
Microsoft SQL Server 2008 Setup Support Files
Microsoft SQL Server Browser
Microsoft SQL Server Compact 3.5 SP2 ENU
Microsoft SQL Server Compact 3.5 SP2 Query Tools E...
Microsoft SQL Server Management Studio Express
Microsoft SQL Server Native Client
Microsoft SQL Server Setup Support Files (English)
Microsoft SQL Server VSS Writer
Microsoft Visual C++ 2008 Redistributable - x86 9.0.2...
Microsoft Visual Studio Tools for Applications 2.0 - E...
MSXML 4.0 SP2 (KB954430)
MSXML 4.0 SP2 (KB973688)
PI CONNECT Simatic Batch V3
VMware Tools
WinRAR
Siemens
Product version: 3.0.0
Support link: http://www.siemens.com
Help link: http://www.siemens.com
Size: 7,49 MB

Confirm the action by clicking "**Yes**".


Programs and Features
Are you sure you want to uninstall PI CONNECT Simatic Batch V3?
In the future, do not show me this dialog box
Yes
No

The software is automatically uninstalled.

The SQL Database remains on the system. If you want to delete this too, start the SQL2005 Database Management Studio express, login with Windows Authentication and delete the database called PCSB.

5. Manual History

Publication Date	Author	Manual Revision	Remarks
2013-Oct.-1st	Kabel	V3.0a	Initial
2014-Feb.-26th	Lutter	V3.1	• service do not need administrative privileges • multiple instances
2014-March-18th	Lutter	V3.1a	User restrictions